

# PATENT ABSTRACTS OF JAPAN

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(71)Applicant : HITACHI LTD

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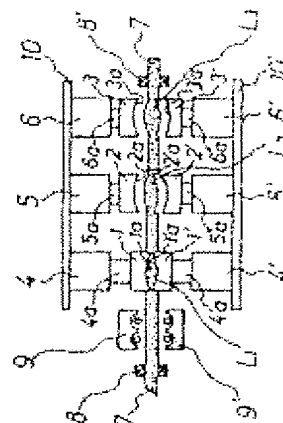
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EGUCHI SHOKI

## (54) MANUFACTURE OF PLASTIC OPTICAL COMPONENT AND DEVICE THEREOF

### (57)Abstract:

**PURPOSE:** To reduce the time required for lens-forming while the accuracy of the shape of the lens is kept at a desired extent by a method in which after the sheet like plastic material to be press-formed has been heated in a thermal deformation temperature range, it is transferred and placed between dies of a top force and a bottom force of first press process, and then a prescribed optical shape is obtained by press-forming, in order, in each of a plurality of press processes.

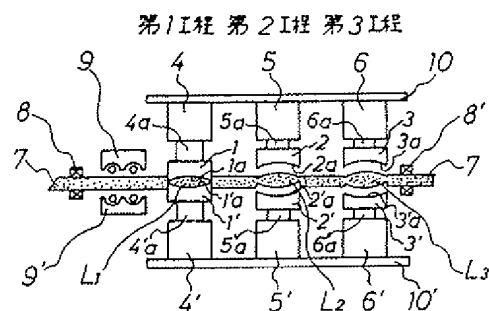
**CONSTITUTION:** Sheet material 7 is advanced through a prescribed distance by transferring clamps 8, 8', and the part heated in thermal deformation temperature-range and softened, is moved into the true center of the dies 1, 1' of top and bottom forces of first process, and the movement of the sheet material is stopped there. Cylinders 4, 4' are driven, and the dies 1, 1' of the top and bottom forces begin shaping so as to nip the sheet 7, and pressurize the sheet until a limiter is operated. After the passage of a prescribed time, the dies 1, 1' of the top and bottom forces are opened, and the transferring clamps 8, 8' are operated, whereby the lens L1 pressurized and shaped in the first process is transferred into between the dies 2, 2' of the top and bottom forces of a second process. Then, a desired final lens L3 is obtained through entirely the same process.



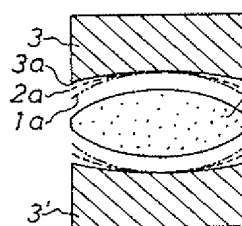
イ面、7…シート材、8、8'…移送クランプ、  
9、9'…加熱器、13…カッター刀、14…排  
気孔、16…温度調節手段。

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(ほか1名)

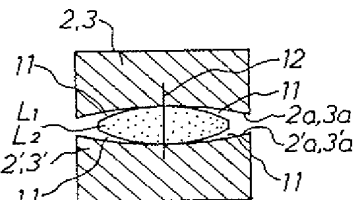
第1図



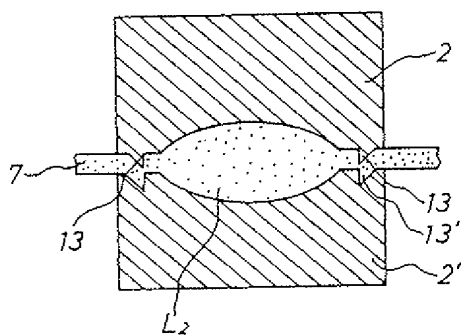
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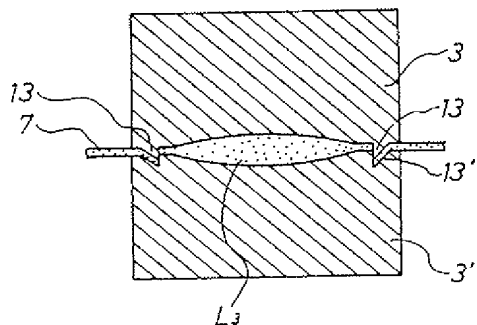
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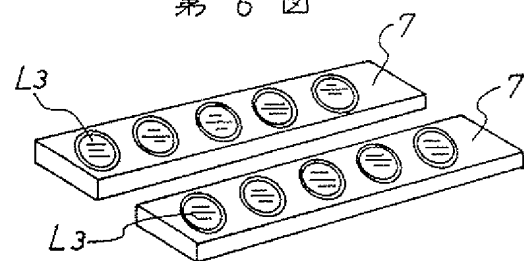
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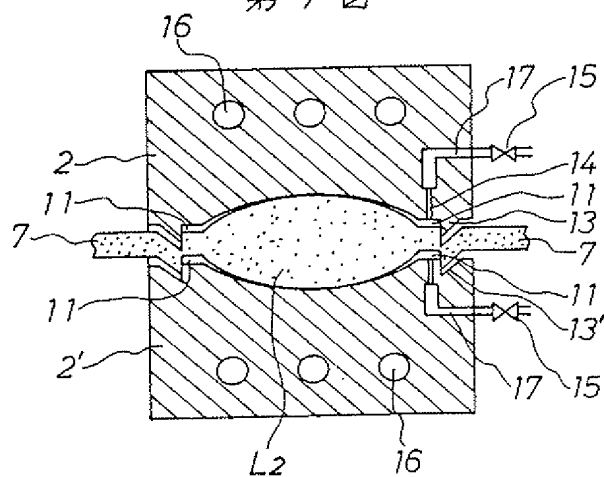
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第6図

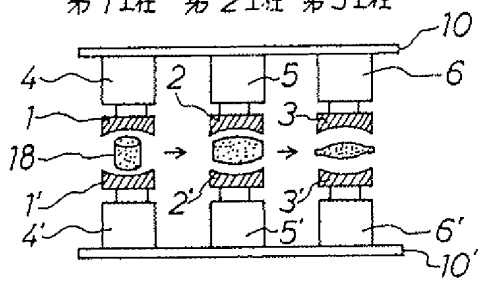


第7図

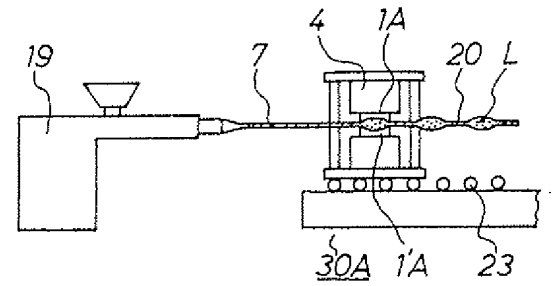


第 8 圖

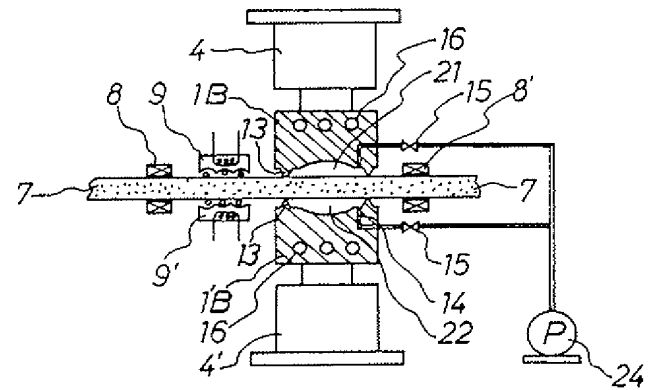
第1工程 第2工程 第3工程



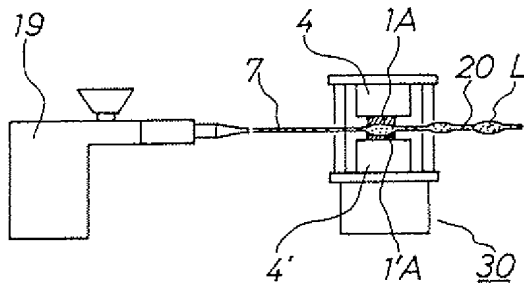
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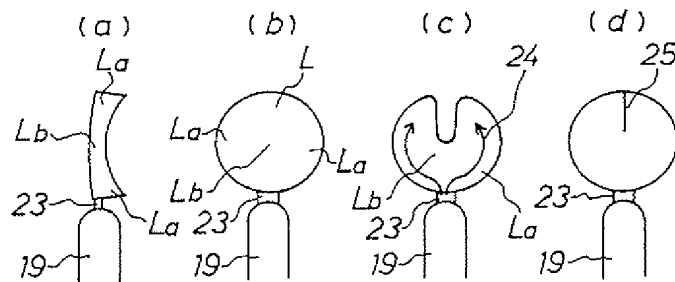
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第 9 圖



第 12 圖



第 13 圖

